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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/779,793 | 02/18/2004 | Soo-Jin Lee | 61610125US | 9634 |

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| EXAMINER | |
|---|---|
| DHARIA, PRABODH M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2629 | |

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/779,793 | LEE, SOO-JIN | |
| | Examiner | Art Unit | |
| | Prabodh M. Dharia | 2629 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *18 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Drawings***

2. Figure 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Newly labeled drawings 1A and 1B are discussed in Background of the invention.

***Response to Amendment***

3. Receipt is acknowledged of papers submitted on 07-01004 under the preliminary amendments, which have been placed of record in the file. It does not introduce new matters into the disclosure. The added material is supported by the original disclosure. Please all the replies and correspondence should be addressed to examiner's new art unit 2629. Claims 1-10 are pending in this action.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Awamato et al. (US 2002/0190925 A1).

Regarding Claim 1, Awamoto et al. teaches an image data correction (page 1, paragraph 9) method for a plasma display panel (page 1, paragraph 2,3, page 2, paragraph 26), which includes a plurality of address electrodes (page 2, paragraph 27, Lines 7-9), and a plurality of scan (Y electrodes are scan electrodes) and sustain electrodes (X electrodes are write and sustain electrodes) arranged alternately and in pairs (page 2, paragraph 27, Lines 1-7), the image data correction method (page 1, paragraph 9) comprising: (a) calculating a load factor of video signals (page 2, paragraph 28, right side column Lines 19-21); (b) determining an automatic power control level corresponding to the load factor (page 2, paragraph 28, right side column Lines 24,25);, and generating sustain pulse information (color data with gradation) and the number of subfields (page 2, paragraph 28, right side column Lines 1-4, page 2, paragraph 27, Lines 1-7);; and (c) selecting a correction table from a memory according to the number of subfields (page 2, paragraph 30, Lines 1-8) and the automatic power control level (page 2, paragraph 28, right side column Lines, 15-18, Lines 24,25), and correcting image data (page 2, paragraphs 228-31, page

3, paragraphs 31,32).

Regarding Claim 2, Awamoto et al. teaches the step (c) comprises outputting correction data from two correction tables constituting an interval including the automatic power control level of input image data by linear interpolation (page 2, paragraphs 228-31, page 3, paragraphs 31,32).

Regarding Claim 3, Awamoto et al. teaches the correction data is based on stored experimental data (pages 2,3, paragraph 31 the data from memory tested and determined it achieves the gradation and brightness or luminance required for correction).

Regarding Claim 4, Awamoto et al. teaches an image data correction (page 1, paragraph 9) method for a plasma display panel (page 1, paragraph 2,3, page 2, paragraph 26), which includes a plurality of address electrodes (page 2, paragraph 27, Lines 7-9), and a plurality of scan (Y electrodes are scan electrodes) and sustain electrodes (X electrodes are write and sustain electrodes) arranged alternately and in pairs (page 2, paragraph 27, Lines 1-7), the image data correction method (page 1, paragraph 9) an average signal level calculator for calculating an average signal level of externally input video signals to output a load factor an automatic power controller generating sustain pulse information (page 2, paragraph 218, right column Lines 19-25) and the number of subfields corresponding to the load factor (page 2, paragraph 218, right column Lines 1-25); a subfield generator for generating subfield data corresponding to each image data for each of the number of subfields output from the automatic power controller(page

2, paragraph 218, right column Lines 1-25); and an image data corrector for receiving the number of subfields fed back from the automatic power controller, correcting image data with reference to a correction table corresponding to the number of subfields, and outputting the corrected image data to the automatic power controller (page 2, paragraphs 2, 28-31, page 3, paragraphs 31,32).

Regarding Claim 5, Awamoto et al. teaches the image data corrector comprises: a memory for storing correction data for gray scale data of the video signals based on subfields; and a table selector for selecting a correction table to output correction data for the input image data with reference to the correction table (page 2, paragraphs 2, 28-30).

Regarding Claim 6, Awamoto et al. teaches the image data corrector (page 1, paragraph 9) comprises: a memory for storing a defined number of correction tables storing correction data for gray scale data of an automatic power control level (page 2, paragraphs 28,-30), wherein a defined number of automatic power control levels are present for each subfield (page 2, paragraphs 28-30, the APC is controlled by load factor which is computed after the gradation data is supplied from memory with subfield) ; a table selector which selects a group of correction tables corresponding to the input image data according to the number of subfields (page 2, paragraph 30); an automatic power control interval discriminator which determines an interval corresponding to the automatic power control level from the selected group of correction tables (page 2, paragraphs 28-30), and-selecting two correction tables including the corresponding interval (page 2, paragraph 30, Lines 1,2); and a linear interpolator which calculates correction

data for the corresponding image gray scale data included in the interval by a linear interpolation operation from the two correction tables forming one interval determined by the automatic power control interval discriminator (page 2, paragraphs 28-30, the APC is controlled by load factor which is computed after the gradation data is supplied from memory with subfield)

Regarding Claim 7, Awamoto et al. teaches a plasma display panel device (page 2, paragraph 26) comprising: a plasma display panel (page 2, paragraph 26) including a plurality of address electrodes (page 2, paragraph 27, Line 7-9), and a plurality of scan and sustain electrodes arranged alternately and in pairs (page 2, paragraph 27, Lines 1-7); a controller for calculating a load factor of externally input video signals (page 2, paragraph 28, right side column Lines 19-25, item # 71,65,67,69, see figure 1), generating sustain pulse information (page 2, paragraph 28, right side column Lines 13-17) and a number of subfields corresponding to the load factor page 2, paragraph 28, right side column Lines 19-25, Lines 1-10), and selecting a correction table corresponding to the number of subfields to output corrected video signals data (page 2, paragraph 30); an address data generator which generates address data corresponding to the corrected data output from the controller (page 2, paragraph 28, right side column Lines 15-17), and applying the generated address data to the address electrodes of the plasma display panel (page 2, paragraph 28, right side column Lines 15-17, paragraph 27); and a sustain/scan pulse generator which generates sustain/scan pulses corresponding to the sustain pulse information output from the controller (page 2, paragraph 28, right side column Lines 13-15, paragraph 27),, and applying the generated sustain/scan pulses to the sustain/scan electrodes (page 2, paragraph

28, right side column Lines 13-15, paragraph 27).

Regarding Claim 8, Awamoto et al. teaches the controller (see figure 1, item # 71, page 2, paragraph 28, Lines 19-25 right side column) comprises: an average signal level calculator for calculating an average signal level of externally input video signals to output a load factor an automatic power controller generating sustain pulse information (page 2, paragraph 218, right column Lines 19-25) and the number of subfields corresponding to the load factor (page 2, paragraph 218, right column Lines 1-25); a subfield generator for generating subfield data corresponding to each image data for each of the number of subfields output from the automatic power controller(page 2, paragraph 218, right column Lines 1-25); and an image data corrector for receiving the number of subfields fed back from the automatic power controller, correcting image data with reference to a correction table corresponding to the number of subfields, and outputting the corrected image data to the automatic power controller (page 2, paragraphs 2, 28-31, page 3, paragraphs 31,32).

Regarding Claim 9, Awamoto et al. teaches the image data corrector comprises: a memory for storing correction data for gray scale data of the video signals based on subfields; and a table selector for selecting a correction table to output correction data for the input image data with reference to the correction table (page 2, paragraphs 2, 28-30).

Regarding Claim 10, Awamoto et al. teaches the image data corrector (page 1, paragraph 9) comprises: a memory for storing a defined number of correction tables storing correction data

for gray scale data of an automatic power control level (page 2, paragraphs 28,-30), wherein a defined number of automatic power control levels are present for each subfield (page 2, paragraphs 28-30, the APC is controlled by load factor which is computed after the gradation data is supplied from memory with subfield) ; a table selector which selects a group of correction tables corresponding to the input image data according to the number of subfields (page 2, paragraph 30); an automatic power control interval discriminator which determines an interval corresponding to the automatic power control level from the selected group of correction tables (page 2, paragraphs 28-30), and-selecting two correction tables including the corresponding interval (page 2, paragraph 30, Lines 1,2); and a linear interpolator which calculates correction data for the corresponding image gray scale data included in the interval by a linear interpolation operation (page 2, paragraph 28, right side column), from the two correction tables forming one interval determined by the automatic power control interval discriminator (page 2, paragraphs 28-30, the APC is controlled by load factor which is computed after the gradation data is supplied from memory tables with subfield)

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tajima et al. (6,249,265 B1) Interframe time-division multiplexing type display device and a method of displaying gray-scales in an intraframe time-division multiplexing type display device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

8. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

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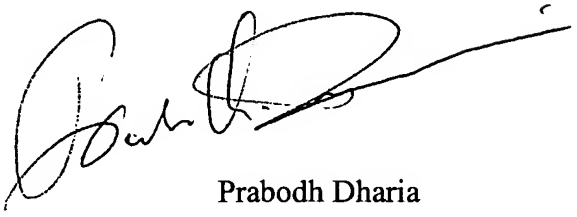

Prabodh Dharia

Partial Program Authority Program

AU 2629

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